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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/587,297

07/26/2006

Tsutomu Nakamura

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EXAMINER

FISCHER, JUSTIN R

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/587,297	<b>Applicant(s)</b> NAKAMURA, TSUTOMU	
	<b>Examiner</b> Justin R. Fischer	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 6-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of claims 1-5 in the reply filed on February 21, 2008 is acknowledged.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa (JP 2002-19413). Nakagawa is directed to a radial tire construction for a two-wheeled vehicle (e.g. motorcycle), wherein said tire comprises (a) a radial carcass 2 formed of cords having an inclination between 70 and 90 degrees with respect to the equatorial plane of the tire and (b) at least one layer of a steel spiral belt
3. While the reference fails to expressly disclose the in plane and out of plane rigidity (and the associated equilibrium value defined by the ratio), one of ordinary skill in the art at the time of the invention would have expected the tread portion of Nakagawa to satisfy the claimed ranges. In particular, the spiral belt of Nakagawa is formed of cords having a single strand structure  $1 \times N$ , wherein  $N=2-7$  and the filaments (N) have a diameter between 0.15 mm and 0.35 mm. Furthermore, the belt of Nakagawa has an end count between 5 and 30 per 25 millimeters (Paragraphs 34 and 35 of attached machine translation). In this instance, each of the disclosed characteristics is

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substantially analogous to that of the claimed invention and thus, it appears that the tread portion of Nakagawa would have properties in accordance to the claimed invention. It is further noted that there does not appear to be any unique processing that results in the claimed properties- it appears that the claimed properties are a direct function of the structure and design of the spiral steel belt layer and given the extreme similarities between the claimed structure and that of Nakagawa, one of ordinary skill in the art at the time of the invention would have found it obvious to form the tire of Nakagawa with the claimed rigidities.

Lastly, with respect to the independent claim, the example tires of Nakagawa have an aspect ratio of 0.55 (rear tire) and 0.70 (front tire) (Paragraph 46). One of ordinary skill in the art at the time of the invention would have found it obvious to form a tire with an aspect ratio between 0.50 and 0.85 and a tread portion having the claimed properties. It is additionally noted that the front tire of Nakagawa (120/70ZR17) is identical to that used by applicant and the rear tire of Nakagawa is extremely similar to that used by applicant (slight difference in aspect ratio) (Paragraph 46).

Regarding claims 2 and 4, as detailed above, Nakagawa discloses both a 1x2 and 1x3 structure, wherein the filaments have a diameter between 0.15 and 0.35 millimeters.

With respect to claims 3 and 5, given the extreme similarities between the claimed tire and that of Nakagawa, one of ordinary skill in the art at the time of the invention would have expected the rigidity ratio to fall between 0.96 and 1.06 and/or

between 0.98 and 1.08. It is emphasized that the rigidities appear to be directly related to the structure and design of the steel spiral belt layer.

As to claim 14, the claim is directed to a method of mounting a single tire on a motorcycle- any limitations regarding a relationship between a front and rear tire do not further define the claimed method of mounting "a pneumatic radial tire on a motorcycle".

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R. Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Justin Fischer  
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Primary Examiner, Art Unit 1791